



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/813,643

03/29/2004

David Leon

037145-3201

4952

30542

7590

01/23/2008

FOLEY & LARDNER LLP

P.O. BOX 80278

SAN DIEGO, CA 92138-0278

EXAMINER

MCLEOD, MARSHALL M

ART UNIT

PAPER NUMBER

4152

MAIL DATE

DELIVERY MODE

01/23/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/813,643	Applicant(s) LEON ET AL.	
	Examiner MARSHALL MCLEOD	Art Unit 4152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-61 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-61 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. Claims 1-61 are pending in this application.

Claim Objections

2. The following claims are objected to for lack of antecedent basis:
“the data file”, claim 1 (line 4); claim 2 (line 1); claim 3 (line 1).

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 46-61 are rejected under 35 U.S.C. 101 because they are directed toward non-statutory subject matter.

5. With respect to claim 46, the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, software *per se*, which is not one of the statutory subject matters.

Art Unit: 4152

6. With respect to claim 56, the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, software *per se*, which is not one of the statutory subject matters.

7. With respect to claim 58, the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, software *per se*, which is not one of the statutory subject matters.

8. With respect to claim 59, the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a composition of matter. As such, they fail to fall within a statutory category. They are, at best, software *per se*, which is not one of the statutory subject matters.

9. With respect to claim 60, the claim lacks the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101. They are clearly not a series of steps or acts to be a process nor are they a combination of chemical compounds to be a

Art Unit: 4152

composition of matter. As such, they fail to fall within a statutory category. They are, at best, software *per se*, which is not one of the statutory subject matters.

10. With respect to claims 47-55, 57, and 61 they are dependent from the previously rejected claims, furthermore, they do not solve the 101 problem in the rejected independent claims above.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-5, 12, 17-22, 27, 32-37, 42, 46-50, 55 and 60-61 are rejected under 35 U.S.C. 102(e) as being anticipated by Klein et al. (Patent No US 7,143,132 B2), hereinafter Klein.

13. With respect to claim 1, Klein discloses a method for distribution of a formatted data file having metadata and content in a system capable of point-to-multipoint communications (Figure 3; Column 2, lines 19-26), the method comprising:

a. transmitting the data file from a sender to a plurality of receivers via a point-to-multipoint session (Column 2, lines 11-15);

- b. retransmitting the metadata from the sender to the plurality of receivers via the point-to-multipoint session (Column 13, lines 34-40, i.e. full transmission of the set of metadata and being repeated periodically);
 - c. wherein retransmission of the metadata can occur at any time during the point-to-multipoint session (Column 3, lines 1-11, i.e. metadata is transmitted in a cyclical (Recurring) fashion, a client can begin receiving the metadata at any point).
- 14. With respect to claim 17, Klein discloses identifying all metadata in the formatted data file (Column 2, lines 40-43; i.e. the metadata is placed on a first channel); and transmitting the identified metadata to a plurality of receivers at an earlier time location than they occur in the original formatted data file in a point-to- multipoint transmission (Column 2, lines 40-49).
- 15. With respect to claim 19, Klein discloses a system for distributing formatted data files having metadata and content via a point-to-multipoint session (Figure 3; Column 2, lines 19-26), the system comprising:
 - a. a sender device (Column 2, lines 13-14); and
 - b. a plurality of receiver devices (Column 2, lines 13-14);
 - c. wherein the sender device is configured to transmit the formatted data file to the plurality of receiver devices via the point-to-multipoint session (Column 4, lines 14-16); and
 - d. wherein the sender device is configured to retransmit the metadata to the plurality of receiver devices via the point-to-multipoint session at any time during the point-to-

multipoint session (Column 3, lines 1-11, i.e. metadata is transmitted in a cyclical (Recurring) fashion, a client can begin receiving the metadata at any point).

16. With respect to claim 32, Klein discloses identifying all metadata in the formatted data file (Column 2, lines 40-43; i.e. the metadata is placed on a first channel); and transmitting the identified metadata to a plurality of receivers at an earlier time location than they occur in the original formatted data file in a point-to- multipoint transmission (Column 2, lines 40-49).

17. With respect to claim 34, Klein discloses a sender device for use in a system for distributing formatted data files having metadata and content (Column 2, lines 19-21), the sender device comprising:

- a. means for sending a formatted data file to a plurality of receiver devices via a point-to-multipoint session (Column 2, lines 11-15);
- b. means for retransmitting the metadata of the formatted data file to the plurality of receiver devices via a point-to-multipoint session (Column 13, Claim 1, lines 34-40, i.e. full transmission of the set of metadata and being repeated periodically);
- c. wherein retransmission of the metadata can occur at any time during the point-to-multipoint session (Column 3, lines 1-11, i.e. metadata is transmitted in a cyclical (Recurring) fashion, a client can begin receiving the metadata at any point).

18. With respect to claim 46, Klein discloses computer code (Column 2, lines 19-28) configured to:

- a. transmit a formatted data file including metadata and content from a sender device to a plurality of receiver devices via a point-to-multipoint session (Figure 3; Column 6, lines 4-7);
 - b. retransmit the metadata to the plurality of receiver devices via the point-to-multipoint session at any time during the point-to-multipoint session (Column 3, lines 1-11, i.e. metadata is transmitted in a cyclical (Recurring) fashion, a client can begin receiving the metadata at any point).
19. With respect to claim 60, Klein discloses a computer code (Column 2, lines 19-28) configured to:
- a. identify all metadata in a formatted data file including metadata and content (Column 2, lines 40-49, i.e. the metadata is identified via the first communication channel and the content is identified via the second communication channel); and
 - b. transmit the identified metadata at an earlier time location than they occur in the formatted data file in a point-to-multipoint transmission session (Column 2, lines 40-49).
20. With respect to claims 2, 20, 35 and 47 Klein discloses transmitting the data file further comprising transmitting the metadata at an earlier time location in the point-to-multipoint session than it they occur in the formatted data file (Column 2, lines 40-49; Column 3, lines 13-16).

21. With respect to claims 3, 21, 36, and 48 Klein discloses retransmitting the data file further comprises first transmitting the metadata and then transmitting the content (Column 2, lines 40-49; Column 3, lines 13-16).
22. With respect to claim 4, Klein discloses wherein retransmitting the metadata occurs after transmitting the content (Column 3, lines 4-12; i.e. if the client began receiving the metadata at some point other than the beginning...).
23. With respect to claims 5, 22, 37, and 50 Klein discloses retransmitting the metadata comprises retransmitting the metadata a plurality of times (Column 2, lines 51-54).
24. With respect to claims 12, 27, 42 and 55, Klein discloses using a point-to-point repair scheme (Column 3, lines 13-23) in conjunction with metadata repetition (Column 2, lines 51-54).
25. With respect to claims 18, 33 and 61, Klein discloses transmitting the metadata to the plurality of receivers at the beginning of the point-to-multipoint session and after transmitting all metadata (Column 2, lines 40-49; Column 3, lines 13-16), transmitting the content to the plurality of receivers via the point-to-multipoint transmission session (Column 2, lines 40-49; Column 3, lines 13-16).
26. With respect to claim 49, Klein discloses retransmitting the metadata after first transmitting the metadata and content of the formatted data file (Column 2, lines 31-39).

Claim Rejections - 35 USC § 103

27. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

28. Claims 11, 13-16, 26, 28-31, 41, 43-45, 54 and 56-59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein in view of Lev Ran et al. (Patent No US 7, 139, 811 B2), hereinafter Lev Ran.

29. With respect to claims 11, 26, 41 and 54, Klein discloses metadata repetition (Column 2, lines 51-54). Klein does not disclose using an FEC repair scheme in conjunction with the metadata repetition. However, Lev Ran discloses using FEC (Column 52, lines 58-63). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the retransmission of the metadata with the use of FEC as disclosed in Lev Ran in order to fix errors and save retransmission bandwidth and delays.

30. With respect to claims 13, 28, 43 and 56, Klein does not disclose using FEC (forward error correction) to allocate more redundancy to the metadata than is allocated to the content. However, Lev Ran discloses using FEC (Column 52, lines 58-63). It would have been obvious

to a person having ordinary skill in the art at the time of the invention to modify the retransmission of the metadata with the use of FEC as disclosed in Lev Ran in order to fix errors and save retransmission bandwidth and delays.

31. With respect to claims 14, 29, 44 and 57, Klein does not disclose using FEC for metadata only. However, Lev Ran discloses using FEC (Column 52, lines 58-63). It would have been obvious to a person having ordinary skill in the art at the time of the invention to specifically modify the retransmission of the metadata with the use of FEC as disclosed in Lev Ran in order to fix errors in the metadata when allocating more redundancy to the metadata, and save retransmission bandwidth and delays.

32. With respect to claims 15, 30 and 58, Klein as modified by Lev Ran discloses transmitting the data file from a sender to a plurality of receivers via a point-to-multipoint session (Klein, Column 2, lines 11-15); and using point-to-point data repair to repair errors (Lev Ran, Column 52, lines 58-63) in receipt of metadata (Klein, Column 2, lines 51-54; i.e. continues to transmit the metadata periodically in cycles) the wherein the receivers are restricted such that they can request metadata but not content (Klein, Column 6, lines 17-20; i.e. a full cycle is complete once the recipient receives all of the data) via point-to-point repair (Klein, Column 6, lines 17-20; i.e. a full cycle is complete once the recipient receives all of the data in its entirety).

33. With respect to claims 16, 31, 45 and 59, Klein as modified by Lev Ran discloses transmitting the data file from a sender to a plurality of receivers via a point-to-multipoint

Art Unit: 4152

session (Klein, Column 2, lines 11-15); and using point-to-point data repair to repair errors (Lev Ran, Column 52, lines 58-63) in receipt of metadata (Klein, Column 2, lines 51-54; i.e. continues to transmit the metadata periodically in cycles) the wherein the sender is restricted such that it can send metadata but not content via point-to-point repair (Klein, Column 6, lines 14-17; i.e. ...transmission cycle is complete once the server distributes...metadata...).

34. Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein as applied to claim 1 above in view of Luby et al., RFC 3452, hereinafter Luby.

35. With respect to claim 6, Klein discloses wherein the formatted data file is transmitted in discrete packets and wherein the sender retransmits packets containing metadata (Klein, Column 2, lines 40-51). Klein does not show each packet having a Source Block Number (SBN) and an Encoding Symbol Identifier (ESI). However, Luby discloses a Source Block Number followed by a 32-bit Encoding Symbol ID (Luby, Page 4, Paragraph 1 ("FEC Encoding ID 129..."). It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Klein with the teachings of Luby in order to speed up the error correction process by specifically point out the information that needs to be corrected in the retransmission.

36. With respect to claim 7, Klein discloses the formatted data file and the retransmitted metadata (Column 13, Claim 1, lines 34-40). Klein does not disclose that the data file and the retransmitted metadata are assigned different Transport Object Identifier (TOI) values.

However, Luby discloses assigning different Transport Object Identifier (TOI) (Luby, Page 6, Paragraph 2 (“The FEC building block...”).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Klein with the teachings of Luby in order to speed up the error correction process by specifically pointing out the receiver the information that is being transmitted.

37. Claims 8, 23, 38 and 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein as applied to claims 1, 19, 34, and 46 above in view of Rahman (Patent No US 7,243,365 B1).

38. With respect to claims 8, 23, 38 and 51, Klein does not disclose wherein the plurality of receivers are informed by the sender that metadata repetition will be supported in the point-to-multipoint session. However, Rahman discloses wherein the plurality of receivers are informed by the sender that metadata repetition will be supported in the point-to-multipoint session (Column 2, lines 54-56, i.e., announcing and identifying metadata).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Klein with the teachings of Rahman in order to make error correction more efficient and faster by letting all the receivers know ahead of time what mode to be in, in order to receive the corrected data.

39. Claims 9-10, 24-25, 39-40, 52 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klein as applied to claims 1, 19, 23, 34, 38, and 51 above in view of Rahman and further in view Handley et al., RFC 2327, hereinafter Handley.

40. With respect to claims 9, 24, 39 and 52, Klein as modified by Rahman discloses wherein a plurality of receivers are informed by the sender that metadata repetition will be supported (Rahman, Column 2, lines 54-56, i.e., announcing and identifying metadata). Klein as modified by Rahman does not disclose that metadata repetition will be supported via Session Description Protocol (SDP). However, Handley discloses using Session Description Protocol (SDP) (Handley, Page 5, Paragraph 5.4 i.e. “SDP may include additional pointers in the form of Universal Resources Identifiers (URIs)”).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to modify the teachings of Klein as modified by Rahman with the teachings of Handley in order to make error correction more efficient and faster by letting all the receivers know ahead of time what mode to be in, in order to receive the corrected data.

41. With respect to claims 10, 25, 40 and 53, Klein as modified discloses wherein the metadata repetition attribute is communicated to the receivers (Rahman, Column 2, lines 54-56, i.e., announcing and identifying metadata). Klein as modified also discloses using URI (Handley, Page 5, Paragraph 5.4 i.e. “SDP may include additional pointers in the form of Universal Resources Identifiers (URIs)”).

Conclusion

42. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARSHALL MCLEOD whose telephone number is (571)270-3808. The examiner can normally be reached on Monday - Friday 7:30 a.m-5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nabil El-Hady can be reached on (571) 272-3963. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

M.M. 12/27/2007

/Nabil El-Hady/
Supervisory Patent Examiner, Art Unit 4152